PRODUCT UPDATE : **VISION VV5500/VV6500** : November 98

VGA Digital CMOS Image Sensor (Preliminary)

The VV5500 (monochrome) and VV6500 (colour) products are highly integrated CMOS VLSI sensors which enable high standards of performance and image quality at a very cost-effective price point. These 640 x 480 VGA resolution devices have both sub-sampled and pan/tilt QVGA mode (320 x 240) and offer one of the simplest routes currently available to design-in of imaging applications.

The monochrome VV5500 incorporates a comprehensive range of on-board controls eliminating the need for additional support chips. The colour VV6500 requires a companion videoprocessing chip such as VISION's VP4 or CPiA2. On-chip A/D conversion provides 10 bit digital output and device set up is fully automatic via the built-in automatic black level calibration algorithm.

Exposure and gain settings are programmable and operation is controlled via a serial interface.

These sensors offer variable frame rates of up to 30 frames per second in VGA mode and 60 frames per second in QVGA mode, via a 4 wire and a digital video bus. The digital interface also provides a tri-stateable data qualification clock and frame synchronisation signal.

Hand-held products such as digital still cameras and PDAs will benefit from the low power requirements and from the inbuilt sleep and power down modes.

The price and performance standards introduced with the VV5500 and VV6500 will enable use of an imaging solution where previously it may not have been practicable on cost grounds.

VISION VV5500/VV6500 imagers will sample in Q1 1999.

KEY FEATURES

- **Highly integrated single chip camera**
- **Up to 30 frames per second operation in VGA**
- **Up to 60 frames per second operation in QVGA**
- **On-chip 10 bit analogue to digital converter**
- **640 x 480 pixel image size**
- **Sub-sampled QVGA mode**
- **Pan/tilt QVGA output format**
- **Automatic exposure and gain control**
- **Serial interface control**
- **Programmable exposure and gain values**
- **Automatic black level calibration**
- **4- and 5-wire digital video bus**
- **3.3V operation**
- **On-chip audio amplifier**
- **On-chip voltage regulator**

APPLICATIONS

- **Personal Video Communications**
- **Digital Still Cameras**
- **Biometrics**
- **Security**
- **Automotive**

TECHNICAL SPECIFICATION

Pixel Resolution:	640 x 480
Array Size:	1/3" format lens compatible
Min. Illumination:	0.1 Lux
S/N:	60 dB
Supply Voltage:	3.3V DC +/- 5%
Supply Current:	50 mA
Operating Temperature:	0^{o}C - 40^{o}C
Package Type:	48LCC or BGA

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